AMENDMENTS TO THE CLAIMS

Claims 1-42 are pending in the instant application. Claims 1, 11, 21, 31 and 41 are independent. Claims 2-10, 12-20, 22-30, 32-40 and 42 depend from independent claims 1, 11, 21, 31 and 41, respectively.

The Applicant requests reconsideration of the claims in view of the following amendments reflected in the listing of claims.

Listing of claims:

1. (Previously Presented) A method for providing enhanced connectivity in a multi-band, multi-protocol network, the method comprising:

aggregating messages from a physical layer of each communication band and each communication channel associated with each of a plurality of protocols in a single multi-protocol layer of the multi-band, multi-protocol network;

identifying an optimal communication path from among said communication band and said communication channel based on said aggregated messages in said single multi-protocol layer; and

establishing a communication session using said identified optimal communication path.

2. (Previously Presented) The method according to claim 1, comprising determining based on said aggregated messages, whether at least one of said communication channels, said communication bands, and a combination of said communication channels and said communication bands provides said optimal communication path for said communication session.

3. (Previously Presented) The method according to claim 2, comprising selecting at least one of said communication channels and communication bands, and a combination of said communication channels and said communication bands for providing said communication session.

4. (Previously Presented) The method according to claim 3, comprising locating said single multi-protocol layer as a sublayer within a data link layer.

5. (Previously Presented) The method according to claim 3, comprising interfacing said single multi-protocol layer above a MAC layer, said MAC layer interfaced with said physical layer that is located below said MAC layer.

6. (Original) The method according to claim 4, wherein said single multi-protocol layer is a super channel sublayer, said super channel sublayer being said sublayer of said data link layer.

7. (Previously Presented) The method according to claim 1, comprising monitoring at least a portion of said aggregated messages in said single multi-protocol layer by at least one of a network management process, a bandwidth management process, a load balancing process, a session control process and a QoS management process.

8. (Previously Presented) The method according to claim 7, comprising interfacing at least one of said network management process, bandwidth management process, load balancing process, session control process and QoS management process with said super channel.

9. (Previously Presented) The method according to claim 8, comprising extracting channel specific data from said single multi-protocol layer by at least one of said network management process, bandwidth management process, load balancing process, session control process and QoS management process.

10. (Previously Presented) The method according to claim 9, comprising sharing channel information acquired by each of said network management process, bandwidth management process, load balancing process, session control process and QoS management process among one or more of said network management process,

bandwidth management process, load balancing process, session control process and QoS management process.

11. (Previously Presented) A machine-readable storage, having stored thereon, a computer program having at least one code section for providing enhanced connectivity in a multi-band, multi-protocol network, the at least one code section being executable by a machine for causing the machine to perform steps comprising:

aggregating messages from a physical layer of each communication band and each communication channel associated with each of a plurality of protocols in a single multi-protocol layer of the multi-band, multi-protocol network;

identifying an optimal communication path from among said communication band and said communication channel based on said aggregated messages in_said single multi-protocol layer; and

establishing a communication session using said identified optimal communication path.

12. (Previously Presented) The machine-readable storage according to claim 11, comprising code for determining based on said aggregated messages, at least one of said communication channels, said communication bands, and a combination of said communication channels and said communication bands provides said optimal communication path for said communication session.

13. (Previously Presented) The machine-readable storage according to claim 12, comprising code for selecting at least one of said communication channels and communication bands, and a combination of said communication channels and said communication bands for providing said communication session.

14. (Previously Presented) The machine-readable storage according to claim 13, comprising code for locating said single multi-protocol layer as a sublayer within a data link layer.

15. (Previously Presented) The machine-readable storage according to claim 13, comprising code for interfacing said single multi-protocol layer above a MAC layer, said MAC layer interfaced with said physical layer that is located below said MAC layer.

16. (Original) The machine-readable storage according to claim 14, wherein said single multi-protocol layer is a super channel sublayer, said super channel sublayer being said sublayer of said data link layer.

17. (Previously Presented) The machine-readable storage according to claim 11, comprising code for monitoring at least a portion of said aggregated messages in said single multi-protocol layer by at least one of a network management process, a

bandwidth management process, a load balancing process, a session control process and a QoS management process.

18. (Previously Presented) The machine-readable storage according to claim 17, comprising code for interfacing at least one of said network management process, bandwidth management process, load balancing process, session control process and QoS management process with said super channel.

19. (Previously Presented) The machine-readable storage according to claim 18, comprising code for extracting channel specific data from said single multi-protocol layer by at least one of said network management process, bandwidth management process, load balancing process, session control process and QoS management process.

20. (Previously Presented) The machine-readable storage according to claim 19, comprising code for sharing channel information acquired by each of said network management process, bandwidth management process, load balancing process, session control process and QoS management process among one or more of said network management process, bandwidth management process, load balancing process, session control process and QoS management process.

21. (Previously Presented) A system for providing enhanced connectivity in a multi-band, multi-protocol network, the system comprising:

means for aggregating messages from a physical layer of each communication band and each communication channel associated with each of a plurality of protocols in a single multi-protocol layer of the multi-band, multi-protocol network;

means for identifying an optimal communication path from among said communication band and said communication channel based on said aggregated messages in said single multi-protocol layer; and

means for establishing a communication session using said identified optimal communication path.

22. (Previously Presented) The system according to claim 21, comprising means for determining based on said aggregated messages, at least one of said communication channels, said communication bands, and a combination of said communication channels and said communication bands provides said optimal communication path for said communication session.

23. (Previously Presented) The system according to claim 22, comprising means for selecting at least one of said communication channels and communication bands, and a combination of said communication channel and said communication band for providing said communication session.

24. (Previously Presented) The system according to claim 23, comprising locating said single multi-protocol layer as a sublayer within a data link layer.

25. (Previously Presented) The system according to claim 23, comprising means for interfacing said single multi-protocol layer above a MAC layer, said MAC layer interfaced with said physical layer that is located below said MAC layer.

26. (Original) The system according to claim 24, wherein said single multi-protocol layer is a super channel sublayer, said super channel sublayer being said sublayer of said data link layer.

27. (Previously Presented) The system according to claim 21, comprising means for monitoring at least a portion of said aggregated messages in said single multi-protocol layer by at least one of a network management process, a bandwidth management process, a load balancing process, a session control process and a QoS management process.

28. (Previously Presented) The system according to claim 27, comprising means for interfacing at least one of said network management process, bandwidth

management process, load balancing process, session control process and QoS management process with said single multi-protocol layer.

29. (Previously Presented) The system according to claim 28, comprising extracting channel specific data from said single multi-protocol layer by at least one of said network management process, bandwidth management process, load balancing process, session control process and QoS management process.

30. (Previously Presented) The system according to claim 29, comprising means for sharing channel information acquired by each of said network management process, bandwidth management process, load balancing process, session control process and QoS management process among one or more of said network management process, bandwidth management process, load balancing process, session control process and QoS management process.

31. (Previously Presented) A system for providing enhanced connectivity in a multi-band, multi-protocol network, the system comprising:

a physical layer for aggregating messages from of each communication band and each communication channel associated with each of a plurality of protocols in a single multi-protocol layer of the multi-band, multi-protocol network;

at least one processor adapted to identify an optimal communication path from among said communication band and said communication channel based on said aggregated messages in said single multi-protocol layer; and

said at least one processor adapted to establish a communication session using said identified optimal communication path.

32. (Original) The system according to claim 31, wherein said at least one processor determines based on said aggregated messages, whether at least one of said communication channels, said communication bands, and a combination of said communication channels and said communication bands provides said optimal communication path for said communication session.

33. (Original) The system according to claim 32, wherein said at least one processor is adapted to select at least one of said communication channels and communication bands, and a combination of said communication channels and said communication bands for providing said communication session.

34. (Original) The system according to claim 33, wherein said single multi-protocol layer is a sublayer located within a data link layer.

35. (Original) The system according to claim 33, wherein said single multi-protocol layer interfaces is located above a MAC layer, said MAC layer interfaced with said physical layer that is located below said MAC layer.

36. (Original) The system according to claim 34, wherein said single multi-protocol layer is a super channel sublayer, said super channel sublayer being said sublayer of said data link layer.

37. (Previously Presented) The system according to claim 31, wherein said at least one processor is adapted to monitor at least a portion of said aggregated messages in said single multi-protocol layer by at least one of a network management process, a bandwidth management process, a load balancing process, a session control process and a QoS management process.

38. (Previously Presented) The system according to claim 37, comprising a network management process controller, bandwidth management process controller, load balancing process controller, session control process controller and QoS management interfaced with said single multi-protocol layer.

39. (Previously Presented) The system according to claim 38, wherein said management process controller, bandwidth management process controller, load

balancing process controller, session control process controller and QoS management process controller is adapted to extract channel specific data from said single multi-protocol layer by at least one of said network.

40. (Original) The system according to claim 39, wherein said management process controller, bandwidth management process controller, load balancing process controller, session control process controller and QoS management process controller is adapted to share channel information among one or more of a management process, bandwidth management process, load balancing process, session control process and QoS management process.

41. (Previously Presented) A system for providing enhanced connectivity in a multi-band, multi-protocol network, the system comprising:

a physical layer;

a MAC layer above, and interfacing with, said physical layer; and

a multi-protocol layer above, and interfacing with, said MAC layer.

42. (Original) The system according to claim 41, wherein said multi-protocol layer and said MAC layer are part of a data link layer.